Information Seeking Habits of Software Professionals in Western India

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Abstract

This study investigates the information seeking patterns and types of information sources used by software professionals which are in western region of India. The study employed the descriptive research method, using questionnaire for data collection. The present study shows that software professionals have been shown more affection to Library collection: also they preferred Non print material with Internet. Software professionals are using Internet as a media to get the information which is followed by online databases.

Keywords

Information, Information seeking, Information seeking habits, Software Professionals, Internet.

1. Introduction

The information-seeking habits of software professionals are of interest and importance to special librarians/ Information officers. While concerned with improving access and use of information, tends to focus more on emerging electronic services than exploring existing needs. No studies, however, have been conducted primarily about software professionals. The new ways of information seeking are connected with new thinking methods and new problem solving approaches. Software professionals in all disciplines need certain background knowledge and skills in information seeking to incorporate the ideas and techniques of information processing into their stream.

2. Definitions

2.1 Information

Shera (1972) defines, “Information is that, which is transmitted by the act or process of communication, it may be a message, a signal, a stimulus. It assumes a response in the receiving organism and therefore, possesses response potential.”

2.2 Information seeking

Kuhlthau (2004) defines information seeking as**,** “The process of construction within information seeking involves fitting information in with what one already knows and extending this knowledge to create new perspectives.”

Case (2002) defines information seeking as “a conscious effort to acquire information in response to a need or gap in your knowledge.”

2.3 Information seeking concept

Information seeking involves the need for the information, purpose for seeking for the information, the type of information being sought for, the sources consulted and the ways or methods employed in getting the information. It is a basic activity indulged in by all people and manifested through a particular behavior. It is also an aspect of scholarly work of most interest, especially to academic librarians who strive to develop collections, services, and organizational structures that facilitate information seeking (Wiberley, 1989). Mann (1993) notes that most researchers only find a fraction of the sources available to them despite the use of computers. He explains that researchers tend to work within one or another mental framework that limits their basic perception of the universe of knowledge available to them. Students according to him use a subject–disciplinary method that leads them to a specific list of sources on a particular subject. He points out that while this method allows students and researchers to find more specific sources, it is limiting in that they may not realize that work of interest to their own subject appears within the literature of many other disciplines (Mann, 1993). This impinges on how much they get out of the library system. Information seeking is undertaken to identify a message that satisfies a perceived need (Wright and Guy, 1997). This activity may be actively or passively done when taking steps to satisfy a felt need (Ikoja–Odongo, 2002). On the other hand, Anderson (2002) believes that information-seeking research looks at how individuals go about finding the materials that they need in order to satisfy informational needs that might be both professional and recreational. There are ways to study the information seeking pattern of people in our every-day life. For example, in the ethnographic experience of an unfamiliar worship service, an individual might gather clues about standing-sitting-kneeling through watching others, through listening for directions from an authority, or through written materials available somewhere in the place of worship. In the university, academics usually follow the patterns established by their peers, relying upon mentors in their fields to guide them in graduate school and early professional development. Zhang (1998) stresses that a thorough understanding of user information needs and behavior are fundamental to the provision of successful information services. According to Devadason and Lingman (1997), the understanding of information needs and information seeking behavior of various professional groups is essential as it helps in the planning, implementation, and operation of information system, and services in work settings.

2.4. Information Seeking Behaviour:

Information behaviour encompasses information seeking as well as the totality of other unintentional or passive behaviours (such as glimpsing or encountering information) as well as purposive behaviours that do not involve seeking, such as avoiding information (Case, 2002). According to Krikelas (1983) information seeking behaviours refers to — any activity of an individual that is undertaken to identify a message that satisfies perceived needs.

Wilson (2000)defines that information seeking behaviour is the purpose of seeking information as a consequence of a need to satisfy some goal. In the course of seeking, the individuals may interact with manual information systems (such as a newspaper or a library) or with computer based systems (such as the web). According to him, a general model of Information behaviour needs to include at least the following elements:“an information need and its drives, i.e. the factors that give rise to an individual’s perception of need, and the process of actions involved in that response”. Normally people used to study small groups via

Observation or unstructured interviews. They have moved away from studying large groups via questionnaires and structured interviews. They attempt to generate information-seeking model. The studies have been conducted for occupational groups and for social roles and demographic groups. They are carried out by the following:

- Quantitative research
  - Used predominately until the 1980s
  - Provides statistical information
- Qualitative research
  - Richer data
  - Does not start with hypothesis

- Mixed methods
    - Combination of qualitative and quantitative approaches

3. Objectives of the Study

- Identify and study Information requirements of software professionals.
- Identify & study the standard sources being referred by various experts in multiple domains of IT industry.
- To find out various media used by software professionals to get information.
- To find out problem faced by software professionals while seeking information.
- Prepare inputs for librarianship in IT services.
- Compare few standard sources being used.

4. Research Methodology

Descriptive research method has been applied for the present study. The questionnaire has been distributed to the software engineers to receive their information seeking modes. The data has been collected through the questionnaire as a tool for data collection. Collected primary data has been analyzed and interpreted under various headings.

5. Scope of the Study

This scope of the study is limited only for the software professionals who are working in Pune and Mumbai region of Western India.The questionnaires have been distributed among 700 software professionals out of which only 678 respondents favorably responded whereas 22 professionals not responded to it in the process of collection of primary data for the present study.

6. Review of Literature

Rupp-Serrano and Robbins (2013) The author founds that the information seeking behavior of academic education faculty from twenty large public research universities. It includes an examination of how frequently education faculty seek or access the information, how they stay up-to-date on current developments in the field and identify less recent journal literature, how valuable library resources and services are to their information needs, and the importance of library research to the fields of education. The responses from the survey participants emphasize the importance of electronic access to scholarly journals and library databases and the continuing value of books, both print and electronic, for meeting the information and research needs of education faculty.

Robbins and Engel (2011) Studies of information-seeking behaviors are common in the professional literature for library and information studies. This study examines the generalizability of findings of single- institution studies to other institutions by performing an institution-to-institution comparison of the results obtained from an information-seeking behavior survey sent to engineering faculty at twenty research institutions

Natarajan (2012) He traced the most important aspects of Information seeking behaviour of the students, for whom the library and information centers are being maintained. It deals with the libraries of management institutions in National Capital Region (NCR) of Delhi. A detailed questionnaire has been circulated and the data analyzed in relation to the availability of information services, the frequency of visits to the library, the gender wise distribution of questionnaire, the nature and type of information required, the major information services used, the purpose of information seeking and the level of satisfaction.

Jamali and Nicholas(2008) Author founds that the two aspects of information seeking behaviour of physicists and astronomers including methods applied for keeping up-to-date and methods used for findingarticles. The relationship between academic status and research field of users with their informationseeking behavior. The study reveals differences among subfields of physics and astronomy in terms ofinformation-seeking behaviour, highlights the need for and the value of looking at narrower subjectcommunities within disciplines for a deeper understanding of the information behaviour of scientists.

7. Data Analysis

7.1.Age Group: To get the Information about the age group of the respondents. The question has been asked and collected information is as in **t**able no.1

Table No.1

Sr.No.	Age group	Frequency	Percentage
1	22-26	317	46.76
2	27-31	269	39.68
3	32-36	60	8.85
4	37-40	5	0.74

5	No Response	27	3.98
	Total	**678**	**100**

Figure No.1

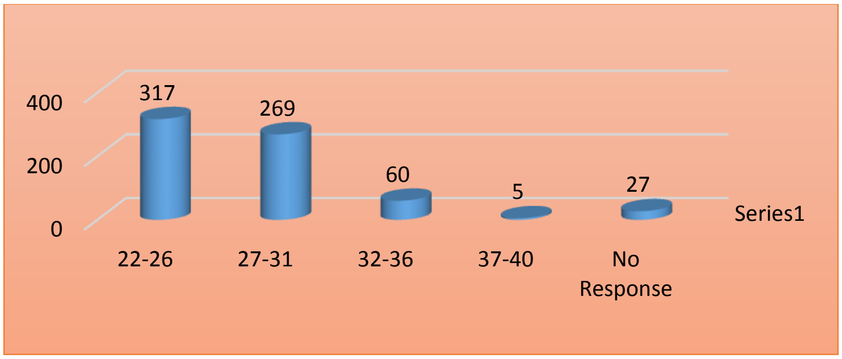

Table No.1 shows that 317 i.e. (46.76%) respondents were between 22-26 years, 269 i.e. (39.68%) were between 27-31 years, 60(8.85%) were between 32-36 years, 5 (0.74%) were between 37-40 years, while 27(3.98%) respondent does not respond.

7.2.Information required

Table 2 shows the information required by the respondent.

Table No.2

Sr.No.	Information Require	Frequency	Percentage
1	Technical information(Technology related)	569	83.92
2	Software Requirement Specification(SRS)	523	77.14
3	Company/Client profile	304	44.84
4	Domain Information	110	16.22
5	Market Analysis	103	15.19
6	No Response	11	1.62

Figure No.2

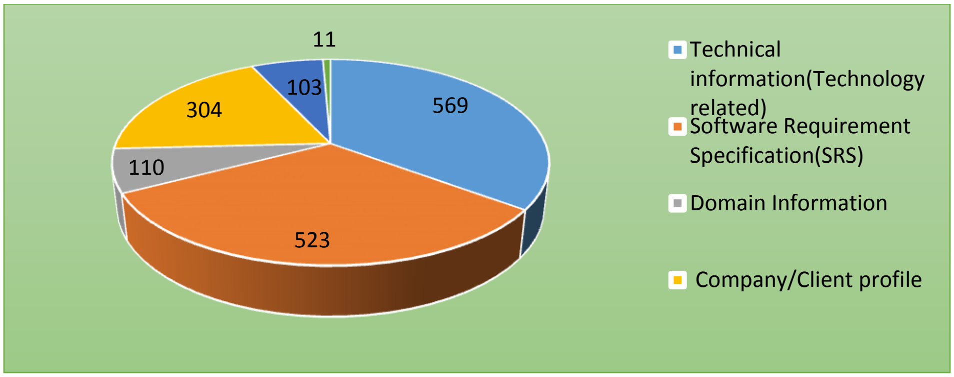

Table no.2 shows the results that 569(83.92%) require technical information, 523(77.14%) software requirement specification, 304(44.84%) company /client profile, 110 (16.22%) require Domain Information and 103(15.19%) require information regarding market analysis.

7.3.Rank of Sources of Information

Table shows the rank of sources of information used by the software professionals.

Table No.3

Sr.No.	Information Sources	Rank	Frequency	Percentage
1	Internet	1	621	91.59
2	Online Database	2	582	85.84
3	Expert	3	558	82.30
4	Supervisors(PM/TL/PL)	4	550	81.12
5	Library resources	5	541	79.79
6	Colleagues(Institution)	6	482	71.09
7	Library catalogue	7	398	58.70
8	Librarian/Information Officer	8	332	48.97
9	Library Staff	9	220	32.45
10	Conference/Workshops/Seminar	10	218	32.15
11	No Response		41	6.05

Table no.3 depicts that 621(91.59%) professional's use internet, 582(85.84%) online database, 558(82.30%) Expertto use while seeking the information.

7.4.Media

Table 4 shows the media used by software professionals

Table No.4

Sr. No.	Media	Frequency	Percentage
1	Internet	664	97.94
2	Books	629	92.77
3	Newspaper	587	86.58
4	Journals/Periodicals	538	79.35
5	Website/Portals	254	37.46
6	Training & Workshops	211	31.12
7	Video Conferencing	118	17.40
8	Teleconferencing	60	8.85
9	No Response	3	0.44

Figure No.3

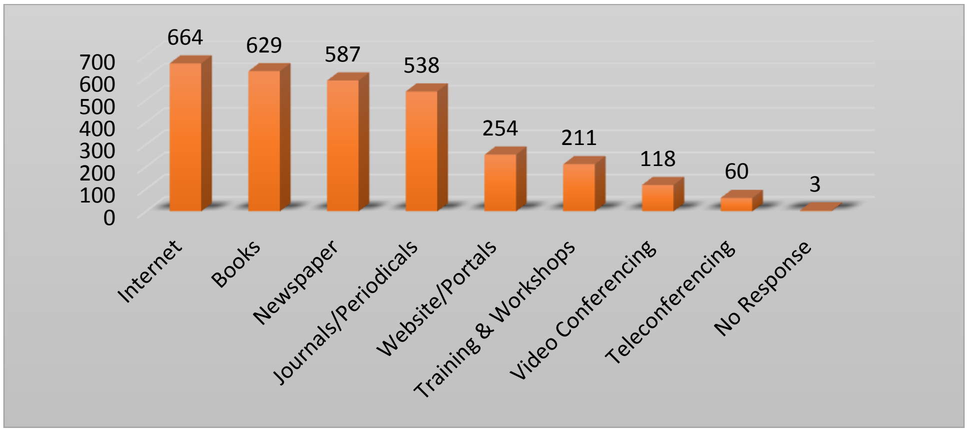

Table no.4 clears that 664 (97.94%) use internet as a media to gather information where 629(92.77%) use books.

7.5.Problems faced by software professionals while seeking information

Table No. 5 shows that difficulties/problems faced by the professionals

Table No.5

Problem	High	%	Low	%	Medium	%	No Response	%
Inadequate Library services	303	44.7	38	5.6	300	44.2	37	5.5
Information not readily available	265	39.09	87	12.82	286	42.18	40	5.9

Information is scattered in too many ways	147	21.68	169	24.93	320	47.2	42	6.19
Interdisciplinary nature of Literature	161	23.75	121	17.85	351	51.77	45	6.64
Lack of time for searching	277	40.86	64	9.44	294	43.36	43	6.34
Lack of access to library material due to library rules/procedures	262	38.64	64	9.44	315	46.46	37	5.46
Lack of co-operation from the library staff	214	31.56	101	14.9	316	46.61	47	6.93
Understanding project requirement	190	28.02	95	14.01	347	51.18	46	6.78
Lack of domain knowledge	207	30.53	100	14.75	337	49.71	34	5.01
Language Problem	138	20.35	147	21.68	360	53.1	33	4.87

Table no.5 depicts that Inadequate Library services and Lack of time for searching are the major difficulties while searching the information

7.6.Inputs required:

Table shows that inputs required from Library

Table No.6

Sr.No.	Inputs	Frequency	Percentage
1	Alerting Service	502	74.04
2	Availability of E-Resources	266	39.23
3	CAS/SDI	240	35.40
4	Reprographic service	43	6.34
5	No Response	9	1.33

Figure No. 4

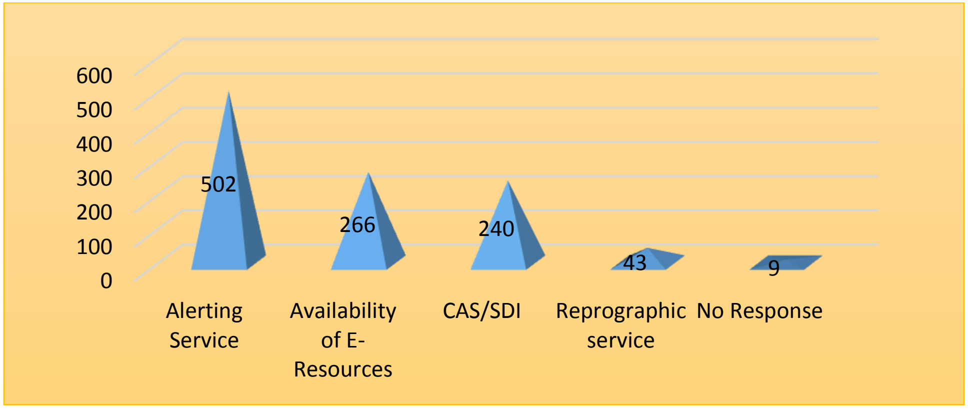

Table no.06 shows that 502(74.04%) professionals needs Alerting services where 266(39.23%) availability of E-resources.

7.7. Print Sources

Table No. 7 shows that print sources used by software professionals

Table No.7

Sr.No.	Print Sources	Frequency	Percentage
1	Book	661	97.49
2	Reference book	341	50.29
3	Year book	179	26.40
4	Periodicals	134	19.76
5	Newsletters	76	11.21
6	Directories	69	10.18
7	No Response	9	1.33

Figure No.5

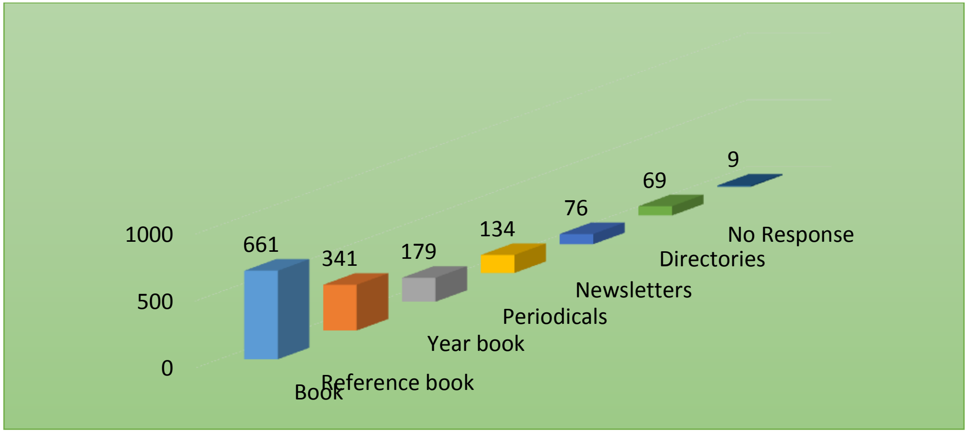

Table 7 shows that books are the predominant print document used by the professional'si.e. 661(97.49%) which is followed by reference book 341(50.29%).

7.8.Non-Print sources:

Table No.8 shows that Non-print sources used by software professionals

Table No.8

Sr.No.	Non-Print Material	Frequency	Percentage
1	Web	650	95.87
2	PDF Files	618	91.15
3	Online databases	545	80.38
4	A/V Material	411	60.62
5	E-books	316	46.61
6	No Response	4	0.59

Table no.8 shows the result 650(95.87%) professionals use Web as a non-print material to get the information, followed by 618i.e. (91.15%) use PDF files.

From table No.7 and table No.8 it is found that, non print sources are mostly preferred by software professionals as compare to print sources.

8. Findings

- In the age group analysis it is observe that the majority respondent belongs to 22-26 age group. Whereas 317 respondents falls in between the age group 27-31.

- It is found that, out of total no. of respondents 569 i.e. (83.92%) professionals requires Technical information
- It is seen that, total no.of respondents 621 i.e. (91.59%) professionals use Internet in rank first position whereas 218 i.e. (32.15%) professionals use Conference/Workshop/Seminar in last position.
- It is observed that, 664 i.e. (97.94%) professionals use Internet as a media of communication whereas 60 i.e. (8.85%) professionals use Teleconferencing.
- It indicates that Inadequate Library Service and Lack of time for searching are the major difficulties in searching the information.
- It is found that, out of 502 i.e. (74.04%) professionals need Alerting service whereas 43 i.e. (6.34%) professionals need Reprographic service.
- It is axiom that, out of 661 i.e. 97.49% professionals use book as a standard sources whereas 69 i.e. (10.18%) use Directories.
- It is seen that, 650 i.e. 95.87% professionals use Web as a standard sources in Non-print material whereas 316 i.e. (46.61 %%) use E-books.
- Non print sources are mostly preferred by software professionals as compare to print sources

9. Conclusions

- In the age group analysis it is observe that the majority respondent belongs to 22-26 age group. Whereas maximum respondents falls in between the ages group 27-31.
- It is found that, software professionals require Technical information.
- It is observed that majority of software professionals use Internet as sources of information in rank first position for seeking information.
- Internet media was used by software professionals to gather information.
- From the above result it is clear that Inadequate Library Service and Lack of time for searching are the major difficulties in searching the information for the professionals.
- It is found that, software professionals need Alerting service and Reprographic service.

- It is axiom that, software professionals use book as a print material and Web as a Non print material to gather required information. So as compared to print sources, non-print sources are mostly preferred by the professionals.

References:

1. Anderson, D.L. 2002. Communicating information across cultures: understanding how others work. New York. Fromhttp://www.pantaneto.co.uk/issue9/andersen.htm Retrieved Nov. 28, 2015.
2. Case, D.O. (2002). Looking for Information: A Survey of Research on Information Seeking, Needs, and Behavior. 2nd ed. Amsterdam: Academic Press.*Drexel Library Quarterly,* 19(2), 20.
3. Devadason, F. J and Lingman, P. P. 1997. A methodology for the identification of information needs of Users, *IFLA Journal. 23*.1: 41-51.
4. Ikoja–Odongo, J.R. 2002. An observational study of the information seeking and communicating behavior of entrepreneurs in the informal sector of Uganda In: Bothma, T. and A. Kaniki. *ProLISSA 2002: Proceedings of the second biennial DiSSAnet conference.* Pretoria: Infuse. 11–28
5. Jamali, Hamid R. and Nicholas, David (2008) Information-seeking behavior of physicists and astronomers. ASLIB Proceedings: New Information Perspectives. Vol. no.60, No.5, pp. 444-462.
6. Krikelas, J. (1983). Information Seeking Behaviours: Pattern and Concept.
7. Kuhlthau, C. C.(2004) *Seeking Meaning: A Process Approach to Library and Information Services,* 2nd edition, Libraries Unlimited, Westport, CT.
8. Mann, T. 1993. *Library research models: A guide to classification, cataloguing and computers*. New York: Oxford University Press.
9. Natarajan, M. (2012) Information seeking behavior of students of Management Institutions in NCR of Delhi. Trends in Information Management. 8(2), pp. 100-110.

10. Robins, Sarah and Engel, Debra (2011) How Unique Are Our Users? Comparing Responses regarding the Information-Seeking Habits of Engineering Faculty. College & Research Libraries. pp. 515.
11. Rupp-Serrano, Karen and Robbins, Sarah (2013) Information-Seeking Habits of Education Faculty.
12. Shera, Jesse H. (1972).Foundation of education for librarianship. New York Becker and Hayes, PP.30-48
13. Wiberley, S.E and Jones, W.G. 1989. Patterns of Information Seeking in the Humanities. *College & Research Libraries.* 50. 6: 638–645.
14. Wright, M. and Guy, L., 1997. “Where do I find it and what do I do with it: Practical problem–solving in the data library. from http://dphs.dacc.wisc.edu/types/data_reference.html Retrieved Dec 14, 2015
15. Zhang, W. 1998. Analyzing faculty and staff's information needs and use of electronic technologies: a liberal arts college's experiences. *Journal of Education Media and Library Sciences 3*.3: 218-24

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